

SWING CHECK VALVES & COMBINATION BALL / SWING CHECK VALVES



Installation: Compression Connections

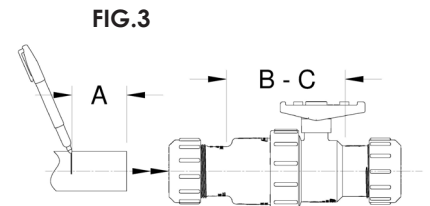
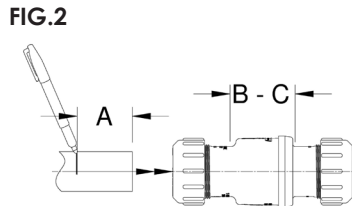
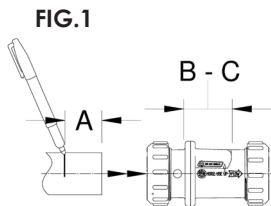
Valve bodies are rated 150 PSI Static Pressure @ 72°F (22°C) Non Shock - Not recommended for use on systems exceeding 100 psi at 120°F (48.8°C).

STANDARD SWING STYLE Model Numbers: 17SPCV-1215, 17SCC-15, 17SCC-20, 17SCBV-15UC & 17SCBV-20UC (cracking pressure of 0 PSI)

QUIET SPRING LOADED SWING STYLE Model Numbers: 17QSCC-15, 17QSCC-20, 17QSCBV-15UC & 17QSCBV-20UC (cracking pressure of 1/2 PSI)

#1 - Design the system piping layout and cut piping to the appropriate length as indicated under the A-B-C dimension on the chart below in order to accommodate the length of the valve from its internal pipe stops.

- Piping must not be smaller than the pump discharge.
- A minimum of 2 feet (.61 m) of static head is recommended over the check valve for positive sealing.
- In an EFFLUENT system, the pipe must be capable of handling semi-solids of at least 3/4" (19mm) in diameter.
- In an SEWAGE system, a 2" valve MUST be used, and the pipe must be capable of handling semi-solids of at least 2" (51mm) in diameter.
- VERTICAL installation is recommended when pumping SOLID-FREE liquids.
- HORIZONTAL installation is critical when pumping SOLIDS OR SEIMI-SOLIDS, if necessary valves can be installed up to 45°. Vertical installation could result in solids settling back down onto the valve preventing the flapper from opening on pump start-up.
- Some pump manufacturers recommend drilling a vent hole to prevent air-locking of the pump (typically located in the basin between the pump and check valve). Refer to pump installation instructions.



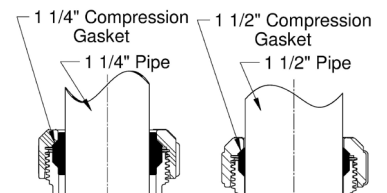
#2 - Deburr end of the pipes and clean both pipe ends and slip sockets of the valve.

#3 - Mark both the inlet and discharge pipes to "A" dimension provided in the chart below to indicate how far the pipe must be inserted into the valve body as indicated in FIG.1 to FIG.3.

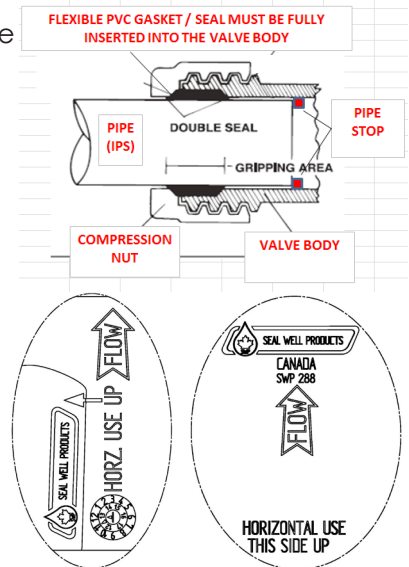
Ref. No.	Standard Model Number	Quiet Model Number	Connection x Outlet	A Dimension		B-C Dimensions			
				inch	mm	inch	mm	mm	
Swing Check Valves									
FIG.1	17SPCV-1215 (Interchangeable Gaskets)	-	1-1/4" or 1-1/2" Compression x 1-1/4" or 1-1/2" Compression	1-5/8	1.625"	41	2-3/16	2.188	56
FIG.2	17SCC-15	17QSCC-15	1-1/2" Compression x 1-1/2" Compression	2-9/16	2.563	65	3-1/8	3.125	79
	17SCC-20	17QSCC-20	2" Compression x 2" Compression	2-9/16	2.563	65	3-7/8	3.875	98
Combination Ball Valve & Swing Check Valves									
FIG.3	17SCBV-15UC	17QSCBV-15UC	1-1/2" Compression x 1-1/2" Compression	2-9/16	2.563	65	5-9/16	5.563	141
	17SCBV-20UC	17QSCBV-20UC	2" Compression x 2" Compression	2-9/16	2.563	65	6-13/16	6.813	173

#4 - Remove the compression nuts by turning counter clockwise, remove the compression gaskets.

NOTE: When installing the model 17SPCV-1215 on 1-1/2" pipe use the thinner gaskets which are tucked inside the valve body for shipping.



#5 - Slide the inlet compression nut followed by the gasket over the discharge pipe from the pump until it covers the marking from step 3, slide the valve body onto the discharge pipe until it bottoms out. Ensure the flow arrow is pointing away from the pump. Then slide the compression nut and gasket towards the valve body and handtighten the compression nut.
*Best practice is to install valves in the **VERTICAL** position when pumping **solid-free** liquids.*



IMPORTANT: When pumping solids / semi-solids valve must be installed HORIZONTALLY (up to 45° angle acceptable, see #1). Extra care must be taken to ensure the flow arrow points away from the pump AND the check valve body is oriented as per the marking on the valve body "HORIZONTAL USE THIS SIDE UP". Failure to position the swing check valve with the hinge of the flapper in the top center position will result in the valve not functioning properly.

#6 - Slide the outlet compression nut followed by the gasket onto the discharge pipe from the check valve until it covers the marking from step 3, position the discharge pipe into the valve body ensuring it bottoms out. Then slide the compression nut and gasket towards the valve body and handtighten the compression nut.

#7 - Double check the markings on the pipe (Step 3) are flush with the ends of the compression nuts.

#8 - Tighten the compression nuts 3/4 to 1 turn with a spanner wrench or strap wrench. Average torque should be approximately 25-foot pounds for valves up to 2" in size.

#9 - IMPORTANT: Properly support and restrain discharge piping to prevent lateral movement by end blocking at direction changes and at any reduction in pipe size. End blocking is crucial when installing compression type fittings and valves to prevent joint separation due to repetitive hydraulic shock. Failure to properly secure and restrain discharge pipe could result in damage to the valves, piping, or potential joint separation resulting in water / property damage.

#10 - Test: Once assembly is completed, the system should be checked to ensure there are no leaks.

GENERAL INFORMATION: Always consult applicable plumbing and/or building codes and local regulations to ensure compliance prior to installation. Plastic piping systems should be installed and operated in accordance with established design and engineering standards and procedures. The products suitability must be determined by the installer/user to ensure suitability prior to installation. All mating piping system components should be inspected prior to assembly to ensure there is no damage or irregularities and that all connection engagements are within tolerance. Do not use any questionable components! Contact the appropriate manufacturer of the component in question to determine suitability.

WARNING: PVC valves/fittings are NOT for use on compressed air, natural gas (NG) or liquid propane (LP) lines. The use of our product in, compressed air or gas systems automatically voids our warranty for such products and its use against our recommendations is entirely the responsibility and liability of the installer. PVC valves/fittings must not be tested using compressed air or gases in above or below ground locations. Boshart Industries will not accept responsibility for damage or impairment of its products, or other consequential or incidental damages caused by misapplication, incorrect installation/assembly, and/or exposure to harmful substances or conditions.

RELATED DOCUMENTS: This document has numerous helpful sump pump system design and installation tips which when followed will significantly reduce the risk of catastrophic failure & property damage due to failure caused by issues such as pump burnout, check valve failure, power outage, blocked or frozen discharge piping to list a few. Like your car or fridge It is impossible to predict how long the components will last, however it is a fact that at some point they will. Without proper safeguards and system maintenance you are one mechanical failure away from water damage / flooding.



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